Central Files

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION V
1990 N. CALIFORNIA BOULEVARD
SUITE 202, WALNUT CREEK PLAZA
WALNUT CREEK, CALIFORNIA 94596

March 16, 1981

Docket No. 50-312

Sacramento Municipal Utility District
P. O. Box 15830
Sacramento, California 95813

Attention: Mr. John J. Mattimoe
Assistant General Manager

Gentlemen:

This information notice is provided as an early notification of a possibly significant matter. It is expected that recipients will review the information for possible applicability to their facilities. No specific action or response is requested at this time. If further NRC evaluations so indicate, an IE circular or bulletin will be issued to recommend or request specific licensee actions. If you have questions regarding this matter, please contact the Director of the appropriate NRC Regional Office.

Sincerely,

R. H. Engelken for
Director

Enclosure:
IE Information Notice No. 81-07

cc w/enclosure:
R. J. Rodriguez, SMUD
L. G. Schwieger, SMUD

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SSINS No.: 6835
Accession No.:
8011040267
IN 81-07

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
WASHINGTON, D.C. 20555

March 16, 1981

IE Information Notice No. 81-07: POTENTIAL PROBLEM WITH WATER-SOLUBLE PURGE DAM MATERIALS USED DURING INERT GAS WELDING

Description of Circumstances:

Recent experiences with water-soluble purge dam materials at several nuclear construction sites have shown the need to develop welding procedures that address the potential for thermally decomposing the purge dam material during inert gas welding or post-weld heat treatment operations. Specifically, polyviryl alcohol film manufactured by Chris-Craft Industries was the purge dam material used at these construction sites. The decomposition of this purge dam material at elevated temperatures causes the material to lose its solubility in water. As a result, the purge dam material cannot be completely dissolved during subsequent piping system flushing and cleaning operations. The failure of this material to completely dissolve could cause significant problems during reactor plant operation.

Specimens of polyvinyl alcohol film were recently obtained from the Mono-Sol Division of Chris-Craft Industries and tested at Franklin Research Center (FRC) to determine, among other things, the threshold temperature at which the material becomes insoluble in water. The results of this test program indicate that (1) the solubility of the purge dam material in water rapidly approaches zero if the material is heated and held at temperatures in excess of 300F; (2) the purge dam material hardens and becomes difficult to break if subjected to temperatures in the range of 300F to 400F, and becomes brittle if heated to 450F; and (3) purge dam material heated above its threshold temperature is not soluble in commonly used laboratory solvents. The independent testing laboratory (FRC) therefore concludes that the Mono-Sol polyvinyl alcohol film will not dissolve during aqueous flushing of the system if the material has been heated to temperatures in excess of 300F.

Recommended Actions for Holders of Operating Licenses and Construction Permits:

It is recommended that all welding operations involving polyvinyl alcohol purge dam materials be governed by procedures that require the material to be located in areas that are sufficiently removed from heat so that the temperature of the material does not reach 300F.

No written response to this information notice is required. If you require additional information with regard to this subject, please contact the appropriate NRC Regional Office.

Attachment:
Recently issued IE Information Notices

Attachment
IN 81-07
March 16, 1981

RECENTLY ISSUED
IE INFORMATION NOTICES

Information Notice No.	Subject	Date of Issue	Issued to
81-06	Failure of ITE Model K-600 Circuit Breaker	3/11/81	All power reactor facilities with an OL or CP
81-05	Degraded DC System at Palisades	3/13/81	All power reactor facilities with an OL or CP
81-04	Cracking in Main Steam Lines	2/27/81	All power reactor facilities with an OL
81-03	Checklist for Licensees Making Notifications of Significant Events in Accordance with 10 CFR 50.72	2/12/81	All power reactor facilities with an OL
81-02	Transportation of Radiography Devices	1/23/81	All Radiography licensees
81-01	Possible Failures of General Electric Type HFA Relays	1/16/81	All power reactor facilities with an OL or CP.
80-45	Potential Failure of BWR Backup Manual Scram Capability	12/17/80	All PWR facilities with an OL or CP
80-44	Actuation of ECCS in the Recirculation Mode While in Hot Shutdown	12/16/80	All PWR facilities with an OL or CP
80-43	Failures of the Continuous Water Level Monitor for the Scram Discharge Volume at Dresden Unit No. 2	12/5/80	All power reactor facilities with an OL or CP
80-42	Effect of Radiation on Hydraulic Snubber Fluid	11/24/80	All power reactor facilities with an OL or CP

OL = Operating Licenses
CP = Construction Permits